WHAT IS CLAIMED IS:

1. An electronic circuit device comprising:

an electronic circuit substrate over which an optical shutter and an optical sensor are disposed, said electronic circuit substrate comprising:

a transparent substrate; and

an electronic circuit including a plurality of laminated thin film transistors formed over said transparent substrate,

wherein an optical signal is inputted from an external, said inputted optical signal is inputted into said optical shutter or said optical sensor; and

wherein said optical shutter controls transmission or non-transmission of said optical signal, and said optical sensor converts said optical signal into an electronic signal using said optical sensor and said electronic circuit over said transparent substrate.

2. The electronic circuit device according to claim 1, wherein the thin film transistor of a lowest layer of the plurality of laminated thin film transistors is crystallized by a heat treatment, and the thin film transistor of another layer of the plurality of laminated thin film transistors is crystallized by irradiating a laser beam.

3. The electronic circuit device according to claim 1, wherein the plurality of laminated thin film transistors are crystallized by a heat treatment.

4. The electronic circuit device according to claim 2, wherein the heat treatment is a heat treatment using a metal catalyst.

5. The electronic circuit device according to claim 3, wherein the heat treatment is a heat treatment using a metal catalyst.

6. The electronic circuit device according to claim 1, wherein said optical sensor over said transparent substrate includes an amorphous silicon photodiode, or an amorphous silicon phototransistor.

7. The electronic circuit device according to claim 1, wherein said optical sensor over said transparent substrate includes a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

8. The electronic circuit device according to claim 1, wherein said optical shutter comprises a liquid crystal which is sandwiched between two transparent substrates.

9. The electronic circuit device according to claim 8, further comprising a polarizing plate, wherein said polarizing plate is disposed over said transparent substrate, and said polarizing plate is disposed only nearby said optical shutter.

10. An electronic circuit device comprising:

a configuration in which a plurality of electronic circuit substrates are superimposed, an optical shutter and an optical sensor are disposed, said electronic circuit substrate comprising:

a transparent substrate; and

an electronic circuit including a plurality of laminated thin film transistors formed over said transparent substrate,

wherein an optical signal is inputted from an external, said inputted optical signal is inputted into said optical shutter or said optical sensor over said transparent substrate, and said optical signal is converted into an electronic signal by said optical sensor and said electronic circuit over said transparent substrate.

11. The electronic circuit device according to claim 10, wherein the thin film

transistor of a lowest layer of the plurality of laminated thin film transistors is crystallized by a heat treatment, and the thin film transistor of another layer of the plurality of laminated thin film transistors is crystallized by irradiating a laser beam.

12. The electronic circuit device according to claim 10, wherein the plurality of laminated thin film transistors are crystallized by a heat treatment.

13. The electronic circuit device according to claim 11, wherein the heat treatment is a heat treatment using a metal catalyst.

14. The electronic circuit device according to claim 12, wherein the heat treatment is a heat treatment using a metal catalyst.

15. The electronic circuit device according to claim 10, wherein said optical sensor over said transparent substrate includes an amorphous silicon photodiode, or an amorphous silicon phototransistor.

16. The electronic circuit device according to claim 10, wherein said optical sensor over said transparent substrate includes a polysilicon (p-Si) photodiode, or a polysilicon photodiode.

17. The electronic circuit device according to claim 10, wherein said optical shutter comprises a liquid crystal which is sandwiched between two transparent substrates.

18. The electronic circuit device according to claim 17, further comprising a polarizing plate, wherein said polarizing plate is disposed over said transparent substrate, said polarizing plate is disposed only nearby said optical shutter.

19. An electronic circuit device comprising:

an electronic circuit substrate over which an optical shutter and a plurality of optical sensors are disposed, said electronic circuit substrate comprising:

a transparent substrate; and

an electronic circuit including a plurality of laminated thin film transistors formed over said transparent substrate,

wherein an optical signal is inputted from an external, said inputted optical signal is inputted into said optical shutter or said optical sensor over said transparent substrate;

wherein said plurality of optical sensors convert said optical signal into an electronic signal by said plurality of optical sensors and said electronic circuit over said transparent substrate; and

wherein said optical sensor is configured with a plurality of different semiconductor layers.

20. The electronic circuit device according to claim 19, wherein the thin film transistor of a lowest layer of the plurality of laminated thin film transistors is crystallized by a heat treatment, and the thin film transistor of another layer of the plurality of laminated thin film transistors is crystallized by irradiating a laser beam.

21. The electronic circuit device according to claim 19, wherein the plurality of laminated thin film transistors are crystallized by a heat treatment.

22. The electronic circuit device according to claim 20, wherein the heat treatment is a heat treatment using a metal catalyst.

23. The electronic circuit device according to claim 21, wherein the heat treatment is a heat treatment using a metal catalyst.

24. The electronic circuit device according to claim 19, wherein said optical sensor over said transparent substrate includes an amorphous silicon photodiode, or an amorphous silicon phototransistor.

25. The electronic circuit device according to claim 19, wherein said optical sensor over said transparent substrate includes a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

26. The electronic circuit device according to claim 19, wherein said optical shutter comprises a liquid crystal which is sandwiched between two transparent substrates.

27. The electronic circuit device according to claim 26, further comprising a polarizing plate, wherein said polarizing plate is disposed over said transparent substrate, said polarizing plate is disposed only nearby said optical shutter.

28. An electronic circuit device comprising:

an electronic circuit substrate over which an optical shutter and a plurality of optical sensors are disposed, said electronic circuit substrate comprising:

a transparent substrate;

an electronic circuit including a plurality of laminated thin film transistors formed over said transparent substrate,

wherein said optical sensor is configured with a plurality of different semiconductor layers, and controlled by thin film transistors formed with semiconductors which are different from each other, respectively; and

wherein an optical signal is inputted from an external, said inputted optical signal is inputted into said optical shutter or said optical sensor over said transparent substrate, and said plurality of optical sensors convert said optical signal into an electronic signal by said plurality of optical sensors and said electronic circuit over

said transparent substrate.

29. The electronic circuit device according to claim 28, wherein the thin film transistor of a lowest layer of the plurality of laminated thin film transistors is crystallized by a heat treatment, and the thin film transistor of another layer of the plurality of laminated thin film transistors is crystallized by irradiating a laser beam.

30. The electronic circuit device according to claim 28, wherein the plurality of laminated thin film transistors are crystallized by a heat treatment.

31. The electronic circuit device according to claim 29, wherein the heat treatment is a heat treatment using a metal catalyst.

32. The electronic circuit device according to claim 30, wherein the heat treatment is a heat treatment using a metal catalyst.

33. The electronic circuit device according to claim 28, wherein said optical sensor over said transparent substrate includes an amorphous silicon photodiode, or an amorphous silicon phototransistor.

34. The electronic circuit according to claim 28, wherein said optical sensor over said transparent substrate includes a polysilicon (p-Si) photodiode, or a polysilicon phototransistor.

35. The electronic circuit device according to claim 28, wherein said optical shutter comprises a liquid crystal which is sandwiched between two transparent substrates.

36. The electronic circuit device according to claim 35, further comprising a

polarizing plate, wherein said polarizing plate is disposed over said transparent substrate, said polarizing plate is disposed only nearby said optical shutter.

37. A computer comprising:

a plurality of arithmetic and logic units and a plurality of storage comprising a plurality of thin film transistors which are laminated and formed over a transparent substrate,

wherein exchanges of electronic information between said substrates are performed by an optical sensor and an optical shutter controlled by thin film transistors.

38. A computer comprising:

a plurality of arithmetic and logic units and a plurality of storage devices comprising a plurality of thin film transistors which are laminated and formed over a transparent substrate,

wherein exchanges of electronic information between said substrates are performed in parallel by an optical sensor and an optical shutter controlled by thin film transistors.